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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,872	10/04/2001	Casey Prindiville	6047-61247	5187

7590

08/14/2002

KLARQUIST SPARKMAN CAMPBELL LEIGH & WHINSTON, LLP

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EXAMINER

PATEL, ISHWARBHAI B

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,872

Applicant(s)

PRINDIVILLE ET AL.

Examiner

Ishwar (I. B.) Patel

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2002.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-14, 23 and 36-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 10-12, 23, 37 and 38 is/are rejected.
7) ☒ Claim(s) 13, 14 and 37 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
2) ☐ Notice of Draftperson's Patent Drawing (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other:

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on April 10, 2002. These drawings are not approved as the cross hatching patterns shown is not correct. The cross hatching patterns should be selected from those shown on page 600-81 of MPEP based on the material of the part. See also 37 CFR 1.84(h)(3) and MPEP 608.02.

Claim Rejections - 35 USC § 103

2. Claims 10-12,23 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eng et al., US Patent 5,952,611, hereafter Eng, in view of Vindasius et al., US Patent 6,098,278, hereafter Vindasius, Sheppard et al., US Patent No. 6,111,324, hereafter Sheppard and Heo et al. (US Patent 6,021,563, hereafter Heo.

Regarding claims 10 and 23, Eng discloses a substrate of a support element, the substrate comprising:

an insulating material having a first surface (substrate 70, see figure 1, column 3, line 30-45);

a wire bond slot forming an opening through the substrate extending from the first surface to a second surface (see figure 1), except

a defective pattern of conductors on the first surface and a cover member attached to the substrate on the second surface so as to cover at least a portion of the wire bond slot, wherein the cover member does not comprise a functional die.

Regarding a defective pattern of conductors on the first surface, it is common to have one or two circuits defective on a panel with multiple circuits, and it is not economical to discard the panels with one or two defective circuits and it is known not to cut and remove the defective circuit till the assembly is complete for all the other good circuits to have the continuity in the set manufacturing steps without any undue waste of time in adjusting the steps. Heo disclose one of such defective circuit; and

regarding a cover member attached to the substrate on the second surface so as to cover at least a portion of the wire bond slot, wherein the cover member does not comprise a functional die, as disclosed by Vindasius it is normal to receive non-functional or defective die from the manufacturer, see Vindasius, column 4, line 15-25, and as disclosed by Sheppard defective die will exist on the array of dies mounted on the support structure, see Sheppard column 4, line 60-67. Therefore, there will exist a defective circuit pattern or defective die on many die attach area of Eng and one of such defective die will work as a cover member. Therefore, it would have been obvious to one having ordinary skill in the art to construe a defective pattern on the substrate covered with a cover member in the assembly of Eng, as there will be defective pattern as well as defective die as disclosed by Heo, Vindasius and Sheppard.

Regarding claim 11, Eng further discloses the cover member comprises a self-adhesive tap (adhesive layer 60 made of a double sided adhesive polyamide tape, see column 3, line 30-40).

Regarding claim 12, Eng further discloses a defective die as applied to claim 10 above.

Regarding claim 37 and 38, Eng further discloses the wire bond slot associated with defective pattern as applied to claim 10 above.

Allowable Subject Matter

3. Claims 13,14 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments with respect to claims 10, 11, 12, 23, 37 and 38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Toh et al. discloses chip size integrated circuit package and Huang et al., discloses ball grid array package.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (703) 305 2617. The examiner can normally be reached on M-F (6:30 - 4) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L Talbott can be reached on (703) 305 9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3431 for regular communications and (703) 305 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

ibp
August 1, 2002



Kline
Primary Examiner

A/29/2002 6047-61247 113833

COPY OF PAPERS
ORIGINALLY FILED
**INFORMATION DISCLOSURE
STATEMENT**
BY APPLICANT

Docket: 6047-61247

App: 09/971,872

Applicant: Prindiville et al.

Filed: October 4, 2001

Art Unit: 2827

U.S. PATENT DOCUMENTS

Init.*	Number	Date	Name	Class	Sub	Filed
IBP	6,265,766	24 July 2001	Moden			
IBP	6,303,997	16 Oct 2001	Lee			

RECEIVED

MAY 10 2002

TECH CENTER 2800

FOREIGN PATENT DOCUMENTS

	Number	Date	Country	Class	Sub	

OTHER DOCUMENTS

EXAMINER: ISHWAR B. PATEL

DATE 8/1/2002

*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if not in conformance and not considered. Send copy.